

Name : _____

Score : _____

Teacher : _____

Date : _____

Multiplying Radical Expressions

Simplify the Radical Expressions.

1) $(-\sqrt{2b^2} - \sqrt{7})(\sqrt{2b^2} - \sqrt{7})$

6) $(-7\sqrt{11k^2} + 6\sqrt{3})(-3\sqrt{11k^2} + \sqrt{3})$

2) $5\sqrt{20c}(\sqrt{32c^2} - 2\sqrt{99c^3})$

7) $4\sqrt{48}(-7\sqrt{99} - 3\sqrt{28})$

3) $\sqrt{99}(-\sqrt{8} - \sqrt{80})$

8) $5\sqrt{20p} \cdot -2\sqrt{32p}$

4) $(-\sqrt{11} - 7\sqrt{3})(6\sqrt{11} + \sqrt{3})$

9) $\sqrt{18} \cdot -\sqrt{28}$

5) $(-\sqrt{2} - \sqrt{11})(\sqrt{2} - \sqrt{11})$

10) $-\sqrt{8} \cdot -\sqrt{80}$



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Simplify the Radical Expressions.

$$1) \left(-\sqrt{2b^2} - \sqrt{7} \right) \left(\sqrt{2b^2} - \sqrt{7} \right)$$

$$-2b^2 + 7$$

$$6) \left(-7\sqrt{11k^2} + 6\sqrt{3} \right) \left(-3\sqrt{11k^2} + \sqrt{3} \right)$$

$$231k^2 - 25k\sqrt{33} + 18$$

$$2) 5\sqrt{20c} \left(\sqrt{32c^2} - 2\sqrt{99c^3} \right)$$

$$40c\sqrt{10c} - 60c^2\sqrt{55}$$

$$7) 4\sqrt{48} \left(-7\sqrt{99} - 3\sqrt{28} \right)$$

$$-336\sqrt{33} - 96\sqrt{21}$$

$$3) \sqrt{99} \left(-\sqrt{8} - \sqrt{80} \right)$$

$$-6\sqrt{22} - 12\sqrt{55}$$

$$8) 5\sqrt{20p} \cdot -2\sqrt{32p}$$

$$-80p\sqrt{10}$$

$$4) \left(-\sqrt{11} - 7\sqrt{3} \right) \left(6\sqrt{11} + \sqrt{3} \right)$$

$$-87 - 43\sqrt{33}$$

$$9) \sqrt{18} \cdot -\sqrt{28}$$

$$-6\sqrt{14}$$

$$5) \left(-\sqrt{2} - \sqrt{11} \right) \left(\sqrt{2} - \sqrt{11} \right)$$

$$9$$

$$10) -\sqrt{8} \cdot -\sqrt{80}$$

$$8\sqrt{10}$$

